

Contact Us



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Maryland Emergency Management Agency



State of Maryland Local Hazard Mitigation Plan Guidance

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A CENTER FOR PREPAREDNESS EXCELLENCE

Note from SHMO



Note from the Maryland Emergency Management Agency Director

Welcome to our first edition of the *State of Maryland Hazard Mitigation Planning Guidebook*. Let me start by stating that the guidebook is not an exhaustive set of instructions for completing hazard mitigation planning, but rather an additional resource provided for this next cycle of local government plan updates. Maryland is proud of the local government hazard mitigation plans completed in the past and encourages improvement and cooperation between the State and local hazard mitigation planning process going forward.

As many of you may be aware, the State of Maryland is working on updating the State Hazard Mitigation Plan for 2016. During this time, we would like to work closely with our local partners to facilitate the planning process and improve cohesion between the State and local mitigation plans. If you should have any questions or ideas for improving hazard mitigation planning, please contact me.

Regards,
Maryland Emergency Management Agency

Notes



Additional Resources



- Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended, 42 U.S.C. 5165, and Title 44 Code of Federal Regulations (CFR) §201, Mitigation Planning. Also see FEMA Multi-Hazard Mitigation Planning at: <http://www.fema.gov/multi-hazard-mitigation-planning>
- FEMA, *Integrating Hazard Mitigation Into Local Planning*, 2013: http://www.fema.gov/media-library-data/20130726-1908-25045-0016/integrating_hazmit.pdf
- MEMA, Maryland Emergency Preparedness Program-Strategic Plan, 2013; Maryland State Hazard Mitigation Plan Update: <http://mema.maryland.gov/Pages/publications.aspx>
- National Weather Service, NOAA: <http://www.weather.gov/>
- FEMA, HAZUS: <https://www.fema.gov/hazus>
- FEMA, NFIP: <https://www.fema.gov/national-flood-insurance-program>
- FEMA, Federal Declarations: <https://www.fema.gov/disasters>
- FEMA, Local Mitigation Planning Handbook, 2013: http://www.fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
- FEMA, Community Rating System: <http://www.fema.gov/national-flood-insurance-program-2/community-rating-system>
- FEMA, Hazard Mitigation: Integrating Best Practices into Planning, 2010: http://www.fema.gov/media-library-data/20130726-1739-25045-4373/pas_560_final.pdf
- FEMA, Bringing the Plan to Life, Guide 386-4: http://www.fema.gov/media-library-data/20130726-1521-20490-9008/fema_386_4.pdf
- MEMA, Hazard Mitigation: <http://mema.maryland.gov/community/Pages/Mitigation.aspx>

Purpose



This document provides planning guidance for local governments to prepare an updated hazard mitigation plan. This guidance introduces Maryland specific recommendations for hazard mitigation planning and introduces ideas for both plan integration and resiliency. This guidance is not intended to supersede or in any way conflict with the Disaster Mitigation Act of 2000 (DMA 2000), but is intended to facilitate cooperation between the State and local governments. Focusing on hazard areas that are most important to the State and local jurisdictions will enhance our ability to set priorities for mitigation planning efforts and implementation of mitigation actions and projects.

Under DMA 2000 regulations, local governments may be defined in many different ways. A local government may be defined by a political boundary, incorporated city, county, parish, or township, or it may not have a distinct political boundary, for example, a watershed or metropolitan region. "Local government" is formally defined in 44 CFR §201.2 of DMA 2000 regulations.

As defined by DMA 2000-

Hazard Mitigation: any substantial action taken to reduce or eliminate the long-term risk to human life and property from hazards.

Planning: the act or process of making or carrying out plans; specifically the establishment of goals, policies, and procedures for a social or economic unit.

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Minimum HMP Standards



The following provides a summary of **minimum standards** set forth within this guidebook. ***Each jurisdiction's Hazard Mitigation Plan must contain information on each of the following:***

TOPIC	STANDARD
Hazards	Flooding, Coastal Hazards (where applicable), Winter Weather, Tornado and Wind events
Critical Facilities	Fire Stations, Hospitals and Medical Clinics, Police Stations, Emergency Operation Centers and Schools (K-12 & Colleges)
Floodplain Management	Floodplain Identification and Mapping, Floodplain Management and Flood Insurance (pages 8 and 9). Also denote qualifying CRS mitigation actions
Capability Assessment	Provide responses regarding existing policies, regulations, programs and practices utilized (page 10)
Plan Integration	Complete Safe Growth Audit Questionnaire

Cultural Resources



Local jurisdictions should consider including historic structures and archeological sites in their local hazard mitigation plan. Natural hazards such as wind events, flooding, coastal storms, and erosion threaten historic structures and archeological sites, which are irreplaceable economic and community assets. *FEMA 386-6 Integrating Historic Property and Cultural Resources Considerations into Hazard Mitigation Planning* provides guidance for cultural resources which can include:

- **Buildings** – Anything built to house human activities (*e.g.*, houses, shops, warehouses, factories, barns, museums);
- **Structures** – Anything that is built but serves a purpose other than creating human shelter (*e.g.*, bandstands, lighthouses, canals, roads);
- **Objects** – Constructions that are primarily artistic in nature or are relatively small in scale and simply constructed or are also associated with a specific setting or environment (*e.g.*, boundary markers, monuments, statuary/sculpture, fountains);
- **Sites** – Places that are the locations of a significant event, activity, or building or structure, regardless of whether standing, ruined, or vanished; where the location possesses historic, cultural, or archeological value regardless of the value of any existing structure (*e.g.*, battlefields, designed landscapes, natural features, shipwrecks);
- **Archeological sites** – A location that contains the physical evidence of past human behavior that allows for its interpretation; and
- **Traditional Cultural Property** – Any location that is significant because of its association with cultural practices or beliefs of a living community that are rooted in that community’s history or are important in maintaining the continuing cultural identity of the community (*e.g.*, properties or features significant to Native American tribes, settings and structures significant to historic industries such as oystering or Baltimore’s Arabber community).

Introduction



Local governments within the State have prepared and updated hazard mitigation plans for over a decade. FEMA planning guidebooks and various sources of reference materials have been used extensively. For the most part, the State and local hazard mitigation plans have been prepared and updated on a timely schedule, thereby meeting the requirements set forth in DMA 2000. In order to achieve similar results and perhaps enhance our combined planning efforts during this next round of plan updates, the State Hazard Mitigation team has developed this guidebook to assist both the State and local governments and provide recommendations for improved cooperation.

The recommendations contained in this guidebook are organized by topic as shown.

TOPIC	RECOMMENDATION	PAGE(S)
Hazards	Minimum hazards identified in all local government plans	2-5
Critical Facilities	Minimum types “Critical Facilities” identified in all local government plans	6-7
Floodplain Management	Floodplain management recommendations	8-9
Capability Assessment	Completion of a Capability Assessment	10
Resiliency	Community Preparedness and Resiliency	11
Plan Integration	Plan integration “Safe Growth Audit” questionnaire.	12-13

Hazards



Utilizing the Federal Declared Disasters information for the State of Maryland, the following hazards should be included in local jurisdiction's hazard mitigation plans.

Flood



Flooding can be categorized as flash, riverine and coastal in Maryland. Flash flooding results from a combination of rainfall intensity and duration, and is further influenced by local topography and the ground's capacity to hold water. Riverine flooding is caused by persistent moderate or heavy rain over one or more days, sometimes combined with snowmelt, causing a river to slowly rise and overflow its banks. Coastal flooding occurs when normally dry, low-lying land is flooded by sea water. The extent of coastal flooding is a function of the elevation inland flood waters penetrate which is controlled by the topography of the coastal land exposed to flooding.

Coastal Hazards



Coastal hazards take many forms ranging from storm systems like tropical storms, hurricanes and Nor'easters that can cause storm surge inundation, heavy precipitation that may lead to flash flooding, and exacerbation of shoreline erosion to longer term hazards such as sea level rise. Therefore coastal hazards are to include, if applicable, coastal storms, storm surge, hurricane, tropical storm, Nor'easter, sea level rise and shoreline erosion.

Photo Sources: Flood (http://www.standeyo.com/NEWS/06_Earth_Changes/060629.NE.floods.html) (<http://baltimore.cbslocal.com/photo-galleries/2012/09/18/severe-weather-floods-parts-of-maryland/>) (<http://www.accuweather.com/en/weather-news/photos-northeast-flooding/54778>), Coastal Hazards (<http://speakwithauthority-jsm.blogspot.com/2012/12/fema-denies-hurricane-sandy-aid-to.html>) (<http://www.photolib.noaa.gov/htmls/line0848.htm>)

MDE - Flood



Maryland Department of the Environment

FLOODPLAIN MANAGEMENT	
MDE's Role:	County's Role:
<ul style="list-style-type: none"> • State Coordinating Office for the National Flood Insurance Program (NFIP) • Cooperating Technical Partner with FEMA • Added enhancements over standard FEMA process <ul style="list-style-type: none"> ○ Better Data ○ Better Modeling Techniques ○ Better for applicants and County Staff 	<ul style="list-style-type: none"> • Participating community in the NFIP <ul style="list-style-type: none"> ○ Flood insurance available to homeowners, business owners and renters • Agreed to adopt and enforce floodplain management regulations <ul style="list-style-type: none"> ○ Regulations based on mapped flood zones • Use FIRMs and Flood Insurance Study (FIS) for "development" review process <ul style="list-style-type: none"> ○ Apply NFIP requirements

MD DFIRM Outreach Website – www.mdfloodmaps.com

- Numerous Outreach Materials
- Flood Risk Application

Coastal Mapping – www.r3coastal.com

- FEMA new analysis of coastal and tidal areas
- New Flood Zone created – Coastal A Zone

Flood Insurance - www.floodsmart.gov

- Homeowners insurance does NOT cover flood

MD Model Floodplain Management Ordinance - www.mdfloodmaps.com

- Recommends 2' Freeboard (Communities Tab)
- Coastal A Zone (CAZ) language included

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Federal Declarations



Through the enactment of the 1988 Robert T. Stafford Disaster Relief and Emergency Assistance Act, local governments can request and obtain a Presidential disaster declaration when a disaster overwhelms them and exhaust their resources. Federally Declared Disasters in Maryland from 2000 to 2014 are as follows:

Disaster Number	Date Declared	Incident Period	Description	Number of Counties Declared
4170	04/10/2014	02/12/2014 – 02/13/2014	Snow Storm	IA=0 PA=0 HMGP=24
4091	11/20/2012	10/26/2012 – 11/04/2012	Hurricane Sandy	IA=1 PA=24 HMGP=24
4075	08/02/2012	06/29/2012 – 07/08/2012	Severe Storms and Straight-line Winds	IA=0 PA=6 HMGP=24
4038	10/05/2011	09/06/2011 – 09/09/2011	Remnants of Tropical Storm Lee	IA=0 PA=7 HMGP=24
4043	09/16/2011	08/24/2011 – 09/05/2011	Hurricane Irene	IA=0 PA=15 HMGP=24
1910	05/06/2010	02/05/2010 – 02/11/2010	Severe Winter Storms and Snowstorms	IA=0 PA=22 HMGP=24
1875	02/19/2010	12/18/2009 – 12/20/2009	Severe Winter Storms and Snowstorms	IA=0 PA=12 HMGP=24
1652	07/02/2006	06/22/2006 – 07/12/2006	Severe Storms, Flooding and Tornadoes	IA=0 PA=3 HMGP=24
3251	09/13/2005	08/29/2005 – 10/1/2005	Hurricane Katrina Evacuation	IA=0 PA=24 HMGP=24
1492	09/19/2003	09/18/2003 – 09/29/2003	Hurricane Isabel	IA=24 PA=24 HMGP=24
3179	03/14/2003	02/14/2003 – 02/23/2003	Snowstorm	IA=0 PA=20 HMGP=0
1409	05/01/2002	04/28/2002 – 04/28/2002	Tornado	IA=3 PA=2 HMGP=24
1324	04/10/2000	01/25/2000 – 01/30/2000	Winter Storm	IA=0 PA=15 HMGP=0

Hazards



Winter Storm



Winter weather can take many forms including snow, freezing rain, sleet and extreme cold that may occur singly or in combination. Some of the most significant winter storms that affect Maryland are known as “Nor’easters” because they are accompanied by strong northeast winds.

Tornado



A tornado is a violently rotating funnel-shaped column of air that extends from a thunderstorm cloud toward the ground. Tornadoes can touch the ground with winds of over 300 mph. While relatively short-lived, tornadoes are intensely focused and are one of nature's most violent storms.

Wind



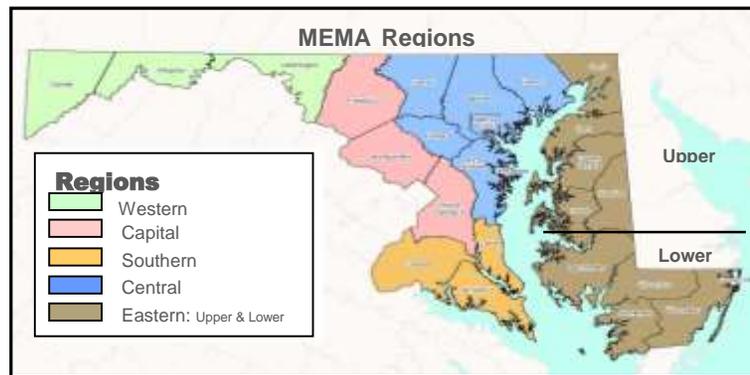
Wind is the motion of air past a given point caused by a difference in pressure from one place to another. The effects can include blowing debris, interruptions in elevated power and communications utilities and intensified effects of winter weather. Two basic types of damaging wind events other than tropical systems affect Maryland: synoptic-scale winds and thunderstorm winds. Synoptic-scale winds are high winds that occur typically with cold frontal passages or Nor’easters. Downbursts cause the high winds in a thunderstorm.

Photo Sources: Winter Storm (<https://www.pinterest.com/pin/464081936571327260/>); Tornado (<http://epod.usra.edu/blog/2001/10/the-f3-tornado-in-maryland.html>), Wind (http://www.baltimoresun.com/topic/disasters-accidents/meteorological-disasters/tornadoes-wind-storms/17003018-topic.html?target=popular&sortby=display_time%20descending&date=10/10/2014-10/17/2014) (<http://www.toledoblade.com/Nation/2011/08/27/Hurricane-force-winds-of-80-mph-lashing-coast-as-Irene-soaks-NC-on-trek-up-Eastern-Seaboard.html>)

Hazards



While the minimum hazards identified using the Federal Declared Disasters information for the State of Maryland is useful, the State encourages local government to identify additional hazards that have or have the potential to impact them on both the local and regional perspective. For example, during the 2011 State update process open houses were held. Results from the open houses yielded the following.



Western Region: Garrett, Allegany, Washington

Participants from the Western Region were very concerned about floods, thunderstorms, winter storms and tornados affecting their communities. Participants also felt epidemic/ pandemic/ common disease and food/water/environmental health issues should be identified as hazards for the western region.

Southern Region: Charles, Calvert, St. Mary's

Participants from the Southern Region added the following hazards for their region: shoreline erosion, sea level rise, upland slope erosion, radiological/nuclear, gas pipeline, and cliff erosion. The Southern Region participants were extremely concerned about the following hazards: flood, coastal, shoreline erosion, upland slope erosion and cliff erosion.

Safe Growth Audit



<p>Environmental Management</p> <ul style="list-style-type: none"> • Are environmental systems that protect development from hazards identified and mapped? • Do environmental policies maintain and restore protective ecosystems? • Do environment policies provide incentives to development that is located outside of protective ecosystems?
<p>Public Safety</p> <ul style="list-style-type: none"> • Are the goals and policies of the comprehensive plan related to those of the FEMA Hazard Mitigation Plan? • Is safety explicitly included in the plan's growth and development policies? • Does the monitoring and implementation section of the plan cover safe-growth objectives?
<p>Zoning Ordinance</p> <ul style="list-style-type: none"> • Does the zoning ordinance conform to the comprehensive plan in terms of discouraging development or redevelopment within natural hazard areas? • Does the ordinance contain natural-hazard overlay zones that set conditions for land use within such zones? • Do rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use? • Does the ordinance prohibit development within, or filling of, wetlands, floodways, and floodplains?
<p>Subdivision Regulations</p> <ul style="list-style-type: none"> • Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas? • Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources? • Do the regulations allow density transfers where hazard areas exist?
<p>Capital Improvement Program & Infrastructure Policies</p> <ul style="list-style-type: none"> • Does the capital improvement program limit expenditures on projects that would encourage development in areas vulnerable to natural hazards? • Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards? • Does the capital improvement program provide funding for hazard mitigation projects identified in the FEMA Mitigation Plan?
<p>Other</p> <ul style="list-style-type: none"> • Do small area or corrido plans recognize the need to avoid or mitigate natural hazards? • Does the building code contain provisions to strengthen or elevate construction to withstand hazard forces? • Do economic development or redevelopment strategies include provisions for mitigating natural hazards? • Is there an adopted evacuation and shelter plan to deal with emergencies from natural hazards?

Source: FEMA Integrating Hazard Mitigation Into Local Mitigation

Plan Integration



Generally described as the routine consideration and management of hazard risks in your community's existing planning framework - plan integration is the collection of plans, policies, codes, and programs that guide development in your community, how those are maintained and implemented, and the roles of people, agencies, and departments in evaluating and updating them. Effective integration of hazard mitigation occurs when your community's planning framework leads to development patterns that do not increase risks from known hazards or leads to redevelopment that reduces risk from known hazards.

*The goal of **safe growth** is to build environments that are safe for current and future generations and to protect buildings, transportation, utilities, and the natural environment from damage.*

The state encourages local governments to work with their local mitigation planning committee to complete the following basic safe growth audit questionnaire for inclusion within their update hazard mitigation plan.

Comprehensive Plan

Land Use

- Does the future land use map clearly identify natural-hazard areas?
- Do the land use policies discourage development or redevelopment within natural-hazard areas?
- Does the plan adequate space for expected future growth in areas located outside of natural-hazard areas?

Transportation

- Does the transportation plan limit access to hazard areas?
- Is transportation policy used to guide growth to safe locations?
- Are movement system designed to function under disaster conditions (e.g., evacuation)?

Hazards



National Capital Region: Frederick, Montgomery, Prince George's

The National Capital Region participants were very concerned about the impacts the following hazards would have on their communities: flood, high wind, thunderstorm, winter storm and tornado. Participants also decided to include major fire, power outage, hurricane, dam failure, public health, active shooter and hazmat to the list of hazards.

Upper Eastern Region: Cecil, Kent, Queen Anne's, Caroline, Talbot

Participants from the Upper Eastern Region were extremely concerned about the impacts from flooding and very concerned about impacts from high wind, thunderstorm, winter storm, tornado, drought and coastal events. The following hazards were also identified and included: fire, power outage, hurricane/Nor'easter, technological failure, dam failure, radiological, transportation accident and hazmat.

Lower Eastern Region: Dorchester, Wicomico, Somerset, Worcester

The Lower Eastern Region participants are extremely concerned about flooding and winter storm impacts on their communities and very concerned about high wind, thunderstorm and coastal impacts. Participants also included terrorism, Nor'easter, radiological and hazmat transportation to the hazard listing.

Central Region: Carroll, Baltimore, Harford, Howard, Baltimore City, Anne Arundel

Participants in the Lower Eastern Region are extremely concerned about thunderstorm and coastal impacts affecting their communities and very concerned about flood, high wind, winter storm and tornado impacts. Participants also included heat wave, utility failure and man-made hazards.

Critical Facilities



After reviewing the listing of critical facilities within the *2011 Maryland State Hazard Mitigation Plan Update*, *2001 FEMA 386-2 Understanding Your Risks* and *HAZUS-MH User's Manual*, the State determined at a minimum the following critical facilities must be included in the local plan update process.

- Fire Stations
- Hospitals and Medical Clinics
- Police Stations
- Emergency Operation Centers
- Schools (K-12 & Colleges)

Critical Facilities are facilities that are critical to the health and welfare of the population and that are especially important following hazard events.

Local jurisdictions may include additional critical facilities. Additional critical facilities included in the *2011 Maryland State Hazard Mitigation Plan Update* and the *2001 FEMA 386-2 Understanding Your Risks Guide* are provided on the next page for reference.

Resilience



The term “resilience” resonates with local planners, particularly where adverse factors threaten the stability of local communities, including economic recession, climate change, and the increasing frequency of disaster events. The concepts of resilience, sustainability, and safe growth are embraced and actively promoted by FEMA through its implementation of Federal regulations for hazard mitigation planning.

Resilience is the ability to adapt to changing conditions and prepare for, withstand, and rapidly recover from disruption.

Sustainability is the capability to equitably meet the vital human needs of the present without compromising the ability of future generations to meet their own needs.

The fundamental goal of local planning: to improve the welfare of people and their communities by creating more convenient, equitable, healthful, efficient, and attractive places for present and future generations. Inherent to this goal is the principle of community resilience – that is, the ability to adapt to changing conditions and prepare for, withstand, and rapidly recover from disruption caused by adverse events.

Capability Assessment



A Capability Assessment is an assessment that provides a description and analysis of a community's current capacity to address the threats associated with hazards. The assessment attempts to identify and evaluate existing policies, regulations, programs and practices that positively or negatively affect the community's vulnerability to hazards or specific threats. The following table could be utilized.

Comprehensive Plan with Subdivision Ordinance	Yes/No/Date
Hazard Mitigation Plan	Yes/No/Date
Land Use Plan	Yes/No/Date
Zoning Ordinance	Yes/No/Date
Flood Mitigation Assistance Plan (FMA)	Yes/No/Date
Floodplain Management Ordinance	Yes/No/Date
Number of Floodplain Buildings	Response
Number of Flood Insurance Policies	Response
Number of Repetitive Losses	Response
CRS Rating	Date/Response
Stormwater Management Program	Date/Response
Building Code Regulations	Yes/No/Date
Building Official	Yes/No/Name
Inspections Conducted	Yes/No
Building Code Effectiveness Grading Schedule (BCEGS) Rating	Response
Warning-sirens Utilized	Yes/No
NOAA Weather Radio Utilized	Yes/No
Cable Override Utilized	Yes/No
Reverse 911 Utilized	Yes/No/System
Lead Time Known	Yes/No
Structural Projects Identified	Yes/No/Number
Property Protection Enforced	Yes/No
Critical Facility Protection Enforced	Yes/No
Natural / Cultural Resources Inventory Recorded	Yes/No
Erosion Control Enforced	Yes/No
Sediment Control Enforced	Yes/No
Public Information Program Established	Yes/No
Environmental Education Program Established	Yes/No

Critical Facilities



2011 Maryland State Hazard Mitigation Plan Update

- Above Ground Storage Tanks
- Underground Storage Tanks
- Bridges and Overpasses
- Nuclear Power Plants
- Consolidated Waste Management Information System
- Environmental Permit Service Center
- Department of Juvenile Services Facilities
- Gas Chlorine Plants
- Large System Water Sources
- Fresh and Wastewater Pumping Facilities
- Airports
- Ferry
- Ports/Docks
- Potable Pumping Stations
- Public and Private Schools
- Waste Water Pumping Stations

2001 FEMA 386-2 Understanding Your Risks Guide

Transportation Systems

- Airports
- Heliports
- Bridges
- Tunnels
- Roadbeds
- Overpasses
- Transfer centers
- Track-age
- Railway tunnels
- Railway bridges
- Rail yards
- Depots
- Canals
- Locks
- Seaports
- Ferries
- Harbors
- Dry-docks, Piers

Lifeline Utility Systems

- Potable water
- Wastewater
- Oil
- Natural gas
- Electric power
- Communication system

High Potential Loss Facilities

- Nuclear power plants
- Dams
- Military installations

Hazardous Materials Facilities

HazMat Facilities containing:

- Corrosives
- Explosives
- Flammable materials
- Radioactive materials
- Toxins

FEMA - Flood



As requested by the Federal Emergency Management Agency, those action items associated with flooding that may be undertaken and documented for the National Flood Insurance Program (NFIP) – Community Rating System (CRS) be denoted. These items may be denoted with the following: *CRS or CRS .

Information regarding local jurisdiction’s strategy for complying with the National Flood Insurance Program (NFIP) should be included in local hazard mitigation plans. Participation in the NFIP is based on a voluntary agreement between the County and its community and FEMA; however, complying with the NFIP extends beyond participation. Three components are utilized for complying with the NFIP and include: 1) floodplain identification and mapping risk, 2) responsible floodplain management and 3) flood insurance. The following bullets are the minimum compliance actions for each component.

Floodplain Identification and Mapping:

- Maintenance of publicly accessible copy of effective FIRM (flood insurance rate map) maps and FIS (flood insurance study); adopt most current DFIRM or FIRM and FIS; and support of local requests for map updates.
- Share with FEMA any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data
- Assistance with local floodplain determinations.
- Maintain a record of approved Letters of Map Change.

FEMA - Flood



Floodplain Management:

- Adopt a compliant floodplain management ordinance that at a minimum regulates the following:
 - Issue permits for all proposed development in the SFHA;
 - Obtain, review and utilize any Base Flood Elevation and floodway data, and require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres;
 - Identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the Base Flood Elevation, including anchoring, using flood resistant materials, designing or locating utilities and service facilities to prevent water damage; and
 - Document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures.
- Enforce the ordinance by monitoring compliance and taking remedial action to correct violations.
- Consider adoption of activities that extend beyond the minimum requirements, including those identified for participation in the Community Rating System, freeboard, prohibition of production or storage of chemicals in SFHA, prohibition of certain types of structures such as: hospitals, nursing homes, jails, prohibition of certain types of residential housing such as manufactured homes, and finally floodplain ordinances that prohibit any new residential or non-residential structures in the SFHA.

Flood Insurance:

- Educate community members about the availability and value of flood insurance.
- Inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates.
- Provide general assistance to community members relating to insurance issues.